

II. General Information

Project Name: ***Indian Valley Flood Corridor Enhancement Project: Phase 1***

Project Location: ***Indian Creek Between East Stampfli Bridge and Indian Creek/Wolf Creek confluence in Indian Valley, near Greenville and Crescent Mills County: Plumas***

Name and address of sponsoring agency or non-profit organization:

***Plumas County, Department of Public Works
1834 East Main
Quincy, CA 95971***

Name of Project Manager (contact): ***Tom Hunter, Public Works Director***

Phone Number: 530/283-6268 E-mail Address: pcpw@psln.com

Grant Request Amount: \$3,647,000

Tom Hunter
Project Manager

Director, Plumas County Public Works
Title

2/12/03
Date

IV. (340 points) Flood Protection Benefits

A. Existing and potential urban development in the floodplain (50)

1. Describe the existing and potential urban development at the site and the nature of the flood risk.

Urban development is unlikely in the near future.

2. How often has flooding occurred historically?

Major recent flooding occurred in 1986, 1995, and 1997. These three events have had return intervals in the range of 50 to 100 years and have produced excessive runoff and valley flooding. Lesser frequency floods with return intervals in the range of 5 to 20 years have occurred in 13 of the past 95 years. Every decade since 1950, Indian Valley has experienced one to three storms of sufficient magnitude to cause overbank flows, flooding of buildings, excessive siltation on agricultural lands, and bank scour or sloughing.

3. Discuss the importance of improving the flood protection at this location. Include the number of people and structures that are affected by the flood hazard, and the flood impacts to highways and roads, railroads, airports and other infrastructure, and agriculture.

The project is located within a FEMA Special Flood Hazard Area with a Flood Zone "A" designation. The impacts of periodic flooding in the project area directly adjacent to Indian Creek greatly affect agricultural lands, including loss or damage to homes and out-buildings and fences, bank erosion and soil loss, damage to water delivery canals, pumps and other agricultural infrastructure, and degraded water quality in Indian Creek from high sediment loads. Fields typically need to be re-leveled following flood events, debris must be removed, and fences must be repaired at great expense to landowners. Flooding in Indian Valley is often widespread because of the high water table and periodically inundates nearby rural residences and roadways, including Stampfli and North Valley Roads (see photos in Attachment 1 showing flooding in the proposed project location and the effects of flooding, including excessive sediment deposition in agricultural fields, streambank erosion, and vertical bank cutting). Public safety also is a critical issue, as floodwaters have repeatedly blocked Stampfli Road, North Valley Road, and Arlington Road. On these occasions, the residences of these communities are essentially isolated during floods, with no safe vehicular route out. Many times in this situation, people attempt to cross the floodwaters on foot to buy provisions and risk drowning. Part of the town of Crescent Mills also becomes inundated, raising the threats of drowning and electrocution. North Valley Road also becomes inundated, and many people attempt to cross the floodwaters on foot.

The proposed project is the first phase of a Valley-wide plan to reduce or eliminate these flood-related impacts.

B. Flood damage reduction benefits of the project (100)

1. Does the proposed project provide for transitory storage of floodwaters? What is the total community need for transitory storage related to this water course and what percentage of the total need does this project satisfy? What is the volume of water and how long is it detained?

As described below, the proposed project is principally a levee-setback project and so does not involve large-scale transitory storage such as detention basins. However, the setback levees proposed in this project do provide for some degree of short-duration storage on a reactivated floodplain. This is particularly important in the local situation addressed in the proposed project because there presently is practically no active floodplain in the project location. While not sufficient to significantly reduce downstream inundation-related impacts during extreme flood events, in more moderate high-flow events, the additional short-duration storage provided by the levee setback may provide significant water level reductions in the immediate vicinity and for some distance downstream.

Later phases of the overall valley-wide plan include reaccessing more extensive floodplains and wetland areas, which in combination with the presently proposed project, provide significant transitory storage.

2. Describe any structural and non-structural flood damage reduction elements of the project. (Examples of structural elements are levees, weirs, detention/retention basins, rock slope-protection, etc. Examples of non-structural elements are acquisition of property for open space, acquisition of land for flood flow easements, transitory storage, relocation of structures and other flood prone development, elevating flood prone structures, flood proofing structures, etc.)

The Indian Valley Flood Corridor Enhancement Project: Phase 1 will set back existing levees along nearly 1 mile of Indian Creek (approximately 4,600 feet) to reduce flood elevations, reduce flow velocities, and provide an additional active floodplain to enable natural stream channel, floodplain, and riparian processes to regenerate. The low-flow stream channel between the setback levees will be revegetated with native riparian species to reduce erosion, provide shading to help improve in-stream water temperatures, and restore and enhance habitat values. The area within the levees and on the levee embankments will be maintained in compatible land uses to ensure stable streambanks and reduced erosion rates.

3. By what methods and by how much dollar value will the project decrease expected average annual flood damages?

The levee setbacks will provide a floodplain to lower the creek profile and contain moderate flood flows. This will prevent or reduce damage to fences, loss of soil and land area, the need for re-leveling fields to spread out sediments deposited during floods, and the degrading impacts of deep sedimentation on land productivity. In addition, existing levees have eroded and/or failed, contributing significantly to downstream sediment deposition and extensive deposition on surrounding properties. Proposed levees will be constructed to more stringent standards to reduce erosion, and will be designed to reduce eroding velocities and propensity for over-topping.

Direct expenses from the 1997 flood for the most impacted landowner and the Plumas County Flood Control and Water Conservation District were in excess of \$320,000. Considerable damages on other adjacent and downstream properties were obviously due to failures and/or conditions of the levees to be replaced as part of the proposed project. Costs that were directly attributable to conditions that will be corrected by the proposed work has not been determined. In recent history, a similar level of damage has been incurred approximately once every 10 years, with more moderate damages occurring with regularity in intervening years.

4. How does the project affect the hydrologic and hydraulic conditions at the project site and adjacent properties?

- a) Will the project reduce the magnitude of a flood flow, which could cause property damage and/or loss of life?

As described above, the proposed project is principally a levee-setback project and so does not directly reduce the magnitude of flood flows. Flood flow levels are concurrently being addressed by restoration of meadows in the upper part of this 740-square-mile watershed. As with this project, the meadow projects are priorities under the Indian Valley Water Resources Management Plan (IVWRMP) (described elsewhere in this proposal package).

Note for clarification: while the upper watershed meadow restoration is part of the overall IVWRMP, funding for these efforts is not requested as part of the proposed project.

- b) What are the effects of the project on water surface elevations during a flood event which could cause property damage and/or loss of life?

The project is expected to lower water surface elevations during flood events by widening and lowering the stream profile. The constricted stream channel in the project area appears to cause a backwater effect upstream and results in a rapid rise in water levels as flood flows increase, even at moderate flood flows of less than a 10-year return interval. By providing additional conveyance area, the expectation is to increase the flood flow capacity through this

reach so that levee overtopping will not occur. Detailed local hydraulic modeling to be conducted as part of the proposed project will help to define the degree of improvement that can be attained within the parameters of the project.. Containing a higher flow within the channel will lessen the frequency of overbank flooding and reduce the depth of flooding.

- c) How are flow velocities impacted by the project during a flood flow which could cause property damage and/or loss of life?

Reduction of flow velocities is a major objective of the proposed project. The project is expected to lower flow velocities during flood events. The increased conveyance area between the levees should, for the same flow, reduce the velocity and lower overbank flows. The level of velocity reduction will be determined through preliminary hydraulic analysis and design, which will be conducted as part of the proposed project. A detailed hydraulic model of the valley was completed for the Indian Valley Watershed Management and Restoration Project. The use of the model resulted in the recommendations of the Indian Valley Water Resources Management Plan (IVWRMP), including the recommendation that is the basis for this proposed project. The modeling showed water velocities in excess of 9 feet/second in this reach of Indian Creek. Although only the more detailed modeling proposed as an early task in this proposed project can determine the velocities that are actually achievable given the other constraints of this reach of stream, velocities in the range of between 2 and 4 feet/second will be targeted.

The Indian Creek Hydraulic Model (see Attachment 2) provides an excellent toolset for project-specific hydraulic analysis and design.

C. Restoration of natural processes (60)

1. Describe how any natural channel processes will be restored (for example: for channel meander, sediment transport, inundation of historic floodplain, etc.) and describe how these natural processes will affect flood management and adjacent properties.

The current channel conditions in the reach of the proposed project include practically no active floodplain above the level of wet season low flows (see photographs included as Attachment 1). The existing levees will be set back to provide a channel width of 400 to 500 feet between the levees, thereby creating a functional floodplain. This, in turn, will allow the stream to reestablish a low-flow channel meander of about 100 feet in width. Renewed floodplain inundation within the setback levees is expected to accommodate flows up to those associated with a 25-year event through the stream reach. (Note: backwater conditions downstream

of the levees make further protection unnecessary in the lower part of the affected reach.) The broadened floodway and lower flow velocities in the project area will reduce scour of banks/levees and enable restoration of riparian vegetation and associated habitat values. Riparian revegetation in the area between the levees will be included in the project. Restoration of channel meander and a floodplain will eventually result in greater geomorphic variability in the stream channel, increased habitat structure, and restored riparian and aquatic habitat values. Suspended sediment will deposit in slack-water areas on the restored floodplain, reducing sediment transport through the reach

2. Describe any upstream or downstream hydraulic or other effects (such as bank erosion or scour, sediment transport, growth inducement, etc.).

The project will reduce high flow velocities and resulting scour within the project reach. This will return stream gradients within the reach and upstream and downstream of the reach to a more natural pattern and reduce the propensity for extensive deposition where current conditions cause rapid velocity drops over short distances (immediately downstream of the proposed project)..

3. If the project includes channel modification or bank protection work, will riprap or dredging be part of the design? If so, provide an analysis of potential benefits and impacts.

The general guiding principle of the project is to set back confining levees and allow the stream to reestablish a degree of meander and low-flow channel complexity. However, the project will include some planned grading within the setback levees to increase flood conveyance capacity and restore a more natural floodplain cross section. The levee will be vegetated to enhance stability, and native riparian species will be replanted between the levees. Buried rock will be placed on the inside core and toe of the new setback levees especially in sensitive areas, such as the vicinity of Stampfli East Bridge. These measures will protect the levees from erosion, damage, and failure, thereby improving flood protection, water quality, and habitat values, as well as reducing downstream sediment deposition. Buried riprap or other suitable bio-engineered stabilization will be used for levee construction. The extent and character of the stabilization will be further defined as part of the detailed hydraulic modeling and design portion of the proposed project.

D. Project effects on the local community (60)

1. How will the project impact future flooding on and off this site?

This project is the first implementation phase of a larger comprehensive watershed management program, the Indian Valley Watershed Management and Restoration Project, designed to address and alleviate extensive problems in Indian Valley related to flooding, erosion, sediment

loading, and water quality and habitat impacts. Project components that have been completed include the Upper Indian Creek Watershed Hydrology Study, The Indian Creek Hydraulic Model, and the Indian Valley Water Resources Management Plan (IVWRMP). The IVWRMP involved modeling a number of recommended improvements. These modeled and recommended improvements included the Stampfli East Bridge Levee Improvements, which constitutes the proposed project and will be the first implementation phase of the IVWRMP in the Valley itself (project implementation is ongoing in the upper watershed to reduce peak flows in Indian Creek entering the Valley). The extent of benefits of this phase alone are limited to the local area where levees will be set back, but in combination with other future implementation phases, more widespread and comprehensive benefits will be realized.

2. How will the project affect emergency evacuation routes or emergency services and demands for emergency services?

Lower floodwater levels will improve access to Stampfli and Taylorsville-Greenville roads by reducing the frequency of inundation.

3. Explain how the project will comply with the local community floodplain management ordinance and the floodplain management criteria specified in the Federal Emergency Management Agency's National Flood Insurance Program (FEMA's NFIP).

The project will comply with the following provisions of the local community floodplain management ordinance, Section 8-17.205 of Chapter 17, Flood, Title 8 of Plumas County Code:

- *All applications for a development permit to construct any facilities within the Special Flood Hazard Area require documentation of the following information: (1) proposed elevation in relation to mean sea level of lowest floor of the structures; (2) proposed elevation in relation to mean sea level to which a nonresidential structure will be floodproofed, if required by Section 8-17.301(c)(2); (3) all appropriate certifications listed in Article 3 of Chapter 17 and Section 9-3.309 of Article 3 of Title 9 of the Code; (4) a description of the extent to which any watercourse will be altered or relocated as a result of the project; (5) proposed method and means, subject to approval of the County Building Official, to verify the location of the improvements; and (6) a completed engineered analysis of the improvements within the flood hazard area based on a uniform procedure prescribed by the County Engineer, reviewed and approved by the County Engineer, and submitted to the County Engineer, Planning Director, and Building Official.*
- *The project also must comply with ordinance provisions regarding: (1) anchoring; (2) construction materials and methods; (3) elevation and floodproofing*

- *Certification by a registered professional engineer or architect that the project shall not result in any increase in base flood elevation or a cumulative effect, when combined with other improvements, that exceeds a 1-foot increase in base flood elevation*

Regarding FEMA requirements, Title 44, Chapter I, Part 9, Section 9.6 of the Code of Federal Regulations, sets out the floodplain management decision-making process to be followed by FEMA in applying its policies and regulations. The project will include coordination with FEMA to complete the decision-making process. This will involve (1) determining whether the proposed action is located the 100-year floodplain or wetland and whether it has the potential to affect or be affected by a floodplain or wetland; (2) notifying the public at the earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process; (3) identifying and evaluating practicable alternatives to locating the proposed action in a floodplain or wetland (including alternative sites, actions, and the “no action” option), and if a practicable alternative exists outside the floodplain or wetland, FEMA must locate the action at the alternative site; (4) identifying the potential direct and indirect impacts associated with the occupancy or modification of floodplain or wetland and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action; (5) minimizing the potential adverse impacts and support to or within floodplains, restore and preserve the natural and beneficial values served by floodplains, and preserve and enhance the natural and beneficial values served by wetlands; (6) reevaluating the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain and wetland values and second, if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in Steps 4 and 5 – FEMA shall not act in a floodplain or wetland unless it is the only practicable location; (7) preparing and providing the public with a finding and public explanation of any final decision that the floodplain or wetland is the only practicable alternative; and (8) reviewing the implementation and post-implementation phases of the proposed action to ensure that the requirements stated in Sec. 9.11 are fully implemented. These requirements, including public notification and participation in decision-making, will be fully met through the steps to be taken in the project preliminary design process, as well as through the CEQA documentation process.

E. Value of improvements protected (70)

1. What is the assessed value of structural improvements that will be protected by the project?

As most of the surrounding land use is agricultural, structural improvements directly and indirectly protected by the project include out-buildings, stables, fences, irrigation canals pumps, wells, and leveled fields. At least one residence with associated shops and storage facilities is within the area directly impacted by the proposed project. However, an assessed value of the structural improvements is not available. In addition, use of approximately 600 acres of farmland will be protected or improved through reduction in scour, levee failure, sediment deposition, frequency of inundation, and bank erosion.

2. What is the estimated replacement value of any flood control facilities or structures protected by the project?

The only flood control structures that will be affected are the current levees, which are prone to erosion and failure. They will be replaced to provide setbacks, resulting in better flood control, a wider, lower channel profile, restored meander and other natural stream processes, improved water quality, and enhanced habitat.

V. (340 points) Wildlife and Agricultural Land Conservation Benefits

Proponent should provide a statement of the relative importance of the project's wildlife and agricultural land conservation benefits. DWR will use the statement and all other project materials to assign a fraction of the total benefits to each type (wildlife (F_w) or agricultural land conservation (F_a)) so that the fractions total unity. Actual points scored for each type of resource will be multiplied by the respective fraction for each resource, and the wildlife and agricultural scores resulting for each type of resource will be added together.

A. ($340 \times F_w$ points) Wildlife Benefits

Habitat values refer to the ecological value and significance of the habitat features at this location that presently occur, have occurred historically, or will occur after restoration.

Viability refers to the site's ability, after restoration if necessary, to remain ecologically viable with minimal on-site management over the long-term, and to be able to recover from any natural catastrophic disturbances (fire, floods, etc.).

A1. Importance of the site to regional ecology (70)

1. Describe any habitat linkages, ecotones, corridors, or other buffer zones within or adjacent to the site. How are these affected by the project?

Indian Valley/Indian Creek serves as a hunting, foraging, and general movement corridor for several state- and federally listed raptor species that nest in and around the lakes and reservoirs in the general area. The reported nesting sites are connected by the Wolf, Lights, and Spanish creek riparian corridors and their various sub-tributaries, through Indian Valley and on down the East Branch of the North Fork Feather River. This

migration route also connects the nesting habitat of the greater sandhill crane to its wintering grounds in the Central Valley.

Waterfowl are prevalent and are known to nest in the project area near the confluence of Indian and Wolf creeks. Some species are migratory, while other species of geese and ducks are present in the area year-round at nearby Round Valley Reservoir, Lake Almanor, and Walker Lake.

Waterfowl nesting has been observed by local landowners affected by the proposed project to be disrupted during moderate and large flood events. Nests are typically located along low areas of standing water, and nests of waterfowl and sandhill cranes are easily disrupted by rising floodwaters.

The stream restoration techniques proposed by the project will serve to improve both the foraging habitat for the raptors and the nesting habitat for the cranes. Restoration of the degraded riparian habitat will add to the overall species diversity in the project area by generally improving the “edge” and ecotone qualities offered by the juxtaposition of a Sierran mixed conifer forest habitat and that of an open grassland/alluvial floodplain.

2. Is the site adjacent to any existing conservation areas?

The site is not immediately adjacent, but is about 10 miles from the Butterfly Valley Botanical Area – a special management preserve within and administered by the Plumas National Forest – that occupies the adjacent Spanish Creek watershed. Logging is strictly prohibited within the preserve. The general project area of Indian Valley is contiguous on the south with the Mt. Hough State Game Refuge.

3. Describe any plans for aquatic restoration resulting in in-stream benefits.

The project will restore floodplain access to the stream channel. This will improve structure/channel morphological complexity in the stream by restoring low-flow meanders and riparian vegetative cover for improved water temperatures and riparian and aquatic habitat.

4. Discuss any natural landscapes within the site that support representative examples of important, landscape-scale ecological functions (flooding, fire, sand transport, sediment trapping, etc.)?

As the main stem and feeder tributaries of Indian Creek emerge from the canyons to the southeast of the project site, their flow velocities diminish rapidly as they hit the broad valley, causing them to drop their sediment loads. This is what historically created the deep soils in the valley, and these processes would be restored to a more natural state by this project, the first phase of a valley-wide program, and further by implementation of the program’s successive phases.

A2. Diversity of species and habitat types (70)

1. Does the site possess any:

- i. areas of unique ecological and/or biological diversity?

No.

- ii. vegetative complexity either horizontally or vertically?

In its current state, the site (within the current constricting levees) has little vegetation due to scouring from frequent high flow velocities and steep, unstable banks. The proposed project would re-establish an active floodplain and revegetate the area adjacent to the low-flow channel with native vegetation. Along with the accompanying grazing limitations imposed on the newly created active floodplain, vegetative complexity will be significantly enhanced.

2. Describe habitat components including year-round availability of water, adequate nesting/denning areas, food sources, etc.

Proven nesting habitat exists onsite for the federally listed threatened greater sandhill crane. Improvement of the riparian vegetation will enhance the viability of this special-status species and potentially provide improved habitat for several other special-status species, such as the state-listed endangered willow flycatcher, which has not been documented at the local project site, but is known to frequent the general project vicinity. Riparian restoration efforts included in the project will also improve the foraging habitat of several special-status raptor species that are known to nest in and around the many lakes, marshes, and reservoirs in the vicinity of the project site.

3. Describe any superior representative examples of specific species or habitats.

The site is presently degraded by alternating deep channel cutting and excessive sedimentation, vertical streambank cutting and erosion, loss of riparian vegetation, and other impacts that resulted from poorly aligned and ineffective levees. It amounts to little more than an irrigation ditch. In a nearby section of Wolf Creek, a landowner has restored riparian vegetation along approximately 1 mile of stream. This project, along with planned future implementation phases, will help to restore natural riparian vegetation communities, stream processes, water quality, and related habitat values.

4. Does the site contain a high number of species and habitat types? List and describe.

As described above, the current conditions of the site are severely degraded.

5. Does the site contain populations of native species that exhibit important subspecies or genetic varieties historically present prior to European immigration?

There are no documented cases of important genetic varieties of native species in the immediate vicinity of the project site..

A3. Ecological importance of species and habitat types (100)

1. Discuss the significance of habitat types at this location and include any local, regional, or statewide benefits received by preserving or improving the area.

Restoring riparian and aquatic habitats at this site will help to improve water quality by reducing erosion and sedimentation and decreasing water temperature as riparian vegetation returns to provide shade. This will provide water quality benefits downstream throughout the valley and beyond, as well as habitat for such valuable aquatic species as trout.

2. Does the site contain any significant wintering, breeding, or nesting areas? Does it fall within any established migratory corridors? What is the level of significance? How are these affected by the project?

See responses to Questions A1-1 and A2-2, above.

3. Describe any existing habitats that support any sensitive, rare, “keystone” or declining species with known highly restricted distributions in the region or state. Does the site contain any designated critical habitat? How are these affected by the project?

California-listed threatened greater sandhill crane (Grus canadensis tabida). Nesting habitat (flat valley floor with substantial wet areas, surrounded by pine forest, with heavy marsh growth along natural watercourses through valley; irrigated pasture often used for loaf sites) will be enhanced through riparian restoration and protection from grazing. No critical habitat existing or proposed in project site. Disruption of nesting of cranes and other wintering waterfowl species has been observed in the area due to quickly fluctuating water levels during flooding. The enhanced floodplain conditions provided by the proposed project may provide more suitable nesting sites that are not as heavily impacted by moderate water level fluctuations.

4. What is the amount of shaded riverine aquatic (SRA) and riparian habitat to be developed, restored, or preserved?

The site is currently mostly devoid of vegetation inside restrictive levees. Revegetation of the area inside the levees with native riparian species, plus restored active floodplain inside the levees along approximately 1 mile of Indian Creek, will encourage the reestablishment and enhancement of riparian and aquatic habitats.

A4. Public benefits accrued from expected habitat improvements (60)

1. Describe present public use/access, if any. For instance, does or will the public have access for the purpose of wildlife viewing, hunting, fishing, photography, picnics, etc.

Most improvements to be constructed during this implementation phase will be on private land, although some of the land is visible from public roadways. Low-intensity waterfowl and game bird hunting is sometimes allowed on lands within the project area by individual landowners on a case-by-case basis. The proposed project will not provide public access to private lands.

2. Discuss areas on the site that are critical for successfully implementing landscape or regional conservation plans. How will the project help to successfully implement the plans?

The IVWRMP is a multiple-objectives plan, spanning habitat, water quality, and flood management concerns. It addresses the Indian Valley in the context of the overall Indian Creek watershed, and coordinates work in the Valley with work in the upper watershed. The IVWRMP was produced with the participation of Plumas County, the RWQCB, DWR, CDFG, NRCS, USFS, Plumas Corporation, and the Indian and American Valleys Resource Conservation District. The proposed project is one phase of the IVWRMP.

3. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, and adjacent disturbed areas with non-native vegetation and other anthropogenic features. Do any surrounding areas detract from habitat values on the site?

The Indian Valley vicinity is a very unique and highly scenic mid-elevation (3,500 feet) mountain valley surrounded by Sierran mixed conifer forest, largely contained within the Plumas National Forest. The occurrence of such a broad valley at this elevation among the northern Sierra is due to its unique origin. The formation of Indian Valley is a result of major geologic faulting that depressed the area north of Arlington Bridge. In effect, the faulting formed a lake with a natural dam in the vicinity of the Arlington Bridge. Over time, the lake filled with sediment and formed the broad meadows characteristic of the Valley.

There are no nearby large urban areas. The Town of Greenville, population about 2,000, is to the northwest. The much smaller community of Crescent Mills is to the southwest. The local area primarily comprises agricultural lands for grazing, hay production, and non-row crops. Roads, bridges, and drainage and irrigation facilities also occupy the vicinity.

4. Describe compatibility with adjacent land uses.

The proposed project will improve the value of surrounding agricultural land by reducing flooding frequency and severity. No negative impacts are anticipated to surrounding lands. Rather, the reduction in erosion,

sedimentation, and flood levels is expected to substantially benefit adjacent agricultural lands.

A5. Viability/sustainability of habitat improvements (40)

1. Describe any future operation, maintenance and monitoring activities planned for the site. How would these activities affect habitat values?

We anticipate mostly passive management, but there will be regular monitoring of levee condition, habitat revegetation success, sediment deposition, erosion etc. by landowners and the Plumas County Flood Control and Water Conservation District. Maintenance activities will be scheduled by these entities as needed. The project includes development of a monitoring and maintenance plan. Management and use of surrounding areas will be compatible with development and maturation of habitat values. The landowner plans to fence cattle from the area within the levees to minimize streambank degradation.

2. Does the site contain large areas of native vegetation or is it adjacent to large protected natural areas or other natural landscapes (for example, a large stand of blue-oak woodland adjacent to public land)?

Large areas of National Forests are in the vicinity. Immediately adjacent to the site, most native vegetation has been degraded or replaced.

There is a general absence of native vegetation along the Indian Creek channel in Indian Valley, although isolated areas of more dense riparian vegetation do exist. This project and planned future projects will begin to connect these isolated islands of riparian habitat into a more coherent corridor.

3. Is the watershed upstream of the site relatively undisturbed or undeveloped and likely to remain so into the foreseeable future? Describe its condition.

The watershed upstream of the project is largely within National Forest. The watershed upstream of the site is generally forested and undeveloped. Much of it lies within the Plumas National Forest, with some private forest and valley bottom holdings. In alignment with the County's overall Water Resources Management Plan for Indian Valley, numerous upper watershed projects have been and are currently being implemented. These projects are also expected to provide considerable flood peak attenuation in downstream areas including Indian Valley. The proposed project is compatible with these efforts and is being coordinated with upper watershed projects that reduce erosion, improve flood retention on floodplains, reconnect floodplains with the stream, and improve habitat conditions.

4. Describe any populations of native species or stands of native habitats that show representative environmental settings, such as soil, elevations,

geographic extremes, or climatic conditions (for example, the wettest or most northerly location of a species within the state.)

No such representative populations or habitats are recognized in the immediate vicinity of the site.

B. (340x_{Fa} points) Agricultural Land Conservation Benefits

B1. Potential productivity of the site as farmland (120)

1. Describe the quality of the agricultural land based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors.

Indian Valley is one of the most productive agricultural areas in Plumas County, which is otherwise mostly steep, forested, or devoid of the type of deep, productive soil present in this area (see further description of the area's unique character above in response to question A4.3). Agriculture (including timber) is the largest business in Plumas County, and non-timber agriculture represents approximately one-third of the total agricultural production (Annual Crop Report, 2001). Although specific accounting of the geographical distribution of agricultural production is not conducted, unofficial estimates suggest that approximately one-third of Plumas County's non-timber agricultural production is in the Indian Valley. The Valley has an excellent climate, rich soils, and adequate water resources to support a highly productive farming industry. The implementation of the proposed project and subsequent phases of the overall IVWRMP will help to preserve this important economic resource.

2. Are projected agricultural practices compatible with water availability?

No long-term changes are anticipated in agricultural water use or availability. Some of the water may be used to speed revegetation on and inside the setback levees. This water will be made available by participating landowners, and required special, temporary irrigation equipment will be included in the project.

3. Does the site come with riparian, mineral, and/or development rights?

Not applicable.

4. Is the site large enough to sustain future commercial agricultural production?

Not applicable.

5. Does the site contain any adverse or beneficial deed restrictions affecting agricultural land conservation?

Not applicable.

6. Describe the present type of agricultural use including the level of production in relation to the site's productivity potential. What is the condition of the existing infrastructure that supports agriculture uses?

Currently, the land is used for hay production and grazing. Land productivity is compromised by erosion of arable land along stream channels, and by deposition of thick layers of sediment or prolonged inundation during flooding events. Surface drainage and irrigation facilities are adequate to support some of the better production in the area. Livestock facilities such as barns and corrals are adjacent to the project. Livestock fencing extends through and around the project area. Livestock are currently excluded from the creek by fencing. Relocated fences will protect the restored stream channel and floodplain.

Most of the Indian Valley agricultural land is currently in hay or pasture, but the climate and soils in the valley would likely support a wide variety of higher margin, specialty crops, including garlic, mint, strawberry plants for transplanting, or alfalfa. However, because of the threat of frequent flooding, most landowners on the valley floor are unable to risk the additional investment required to grow these crops that are otherwise suited to the unique conditions in Indian Valley. With the implementation of the proposed project, along with subsequent phases of the overall IVWRMP, the reduced extent and frequency of flooding might support transition to these or other, more profitable crops.

B2. Farming practices and commercial viability (40)

1. Does the area possess necessary market infrastructure and agricultural support services?

Facilities and infrastructure are sufficient to support an increase in agricultural production that would be possible as a result of protection and improvements to agricultural lands along approximately a mile of Indian Creek. Forage and pasture production are mostly consumed locally.

2. Are surrounding parcels compatible with commercial agricultural production?

Much of Indian Valley is devoted to grazing and hay production. No change in the scale of commercial agricultural activity is anticipated. The generally rural character of the Valley is compatible with the historical and expected future land uses within the project.

3. Is there local government economic support in place for agricultural enterprises including water policies, public education, marketing support, and consumer and recreational incentives?

Plumas County supports and participates in watershed planning in Indian Valley through the Indian Valley Watershed Management and Restoration Project, of which this project is one component. This project will benefit agricultural landowners in Indian Valley and contribute to regional

objectives related to water quality improvement and habitat restoration. The County has chartered the Indian Valley Technical Advisory Committee (IVTAC), consisting of resource agency representatives, local landowners, and other stakeholders to promote public education and support for watershed management and flood control improvements. IVTAC was responsible for oversight of previously mentioned hydrology studies and the Indian Valley Water Resources Management Plan, and includes representatives of all of the aforementioned agencies, affected local landowners, and groups implementing upper watershed restoration work. Most of the IVTAC member agencies were consulted during the development of this proposal. Local government (Plumas County) has led the IVTAC in responding to local agricultural enterprises' call for improved water resources management in Indian Valley.

4. Describe any present or planned future environmentally friendly farm practices (no till, erosion control, wetlands avoidance, eco-friendly chemicals, recycling wastes, water conservation, biological pest control).

Indian Valley agriculture is generally not chemical-intensive. Previous projects, co-funded by landowners and NRCS, have included exclusion of cattle from riparian zones by fencing, as well as streambank stabilization. The project includes modification to fencing networks to protect project features, and restoration of riparian areas. Created/enhanced wetlands and riparian areas will be avoided or will be grazed with riparian-friendly practices such as flash grazing, fencing livestock from the stream channels, etc.

B3. Need and urgency for farmland preservation measures (70)

1. Is the project site under a Williamson Act contract?

Yes.

2. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, low density ranchette communities, and adjacent disturbed areas with non-native vegetation and other human-induced features. Do any surrounding areas detract from agricultural values on the site?

There are no large urban areas nearby. Indian Valley cannot be characterized as rapidly developing, but development of low-density ranchette communities is expanding in and adjacent to Indian Valley. Riparian areas often suffer from noxious weed (e.g., starthistle) infestation, which is favored by the dry conditions occasioned by the current bank condition, levees, and grazing regime. Surrounding areas are mostly national forest and are scenic.

3. What types of conversion or development are likely on neighboring parcels? What are the land uses of nearby parcels? Describe the effects, if any, of this project to neighboring farming operations or other neighboring land uses.

Currently, there is little pressure to develop parcels directly affected by the proposed project. However subdivision for development of “ranchette” residential areas (minimum 80-acre parcels) is increasing in adjacent areas. Most land uses in Indian Valley are similar. Impacts on surrounding parcels will be generally positive, resulting from reduction in sediment load and flood elevations.

4. Describe the relationship between the project site and any applicable sphere of influence.

The nearest communities, Greenville and Crescent Mills, are small and relatively stable, and have evolved around agricultural development and forest management activities in and around Indian Valley. The project is unlikely to result in any new development or land use changes, but will benefit these surrounding communities through enhanced agricultural productivity, improved wildlife habitat, reduced disruption to transportation and emergency services, and improved aesthetics..

B4. Compatibility of project with local government planning (50)

1. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation?

Yes to both questions.

2. What is the present zoning and is the parcel developable?

The parcels affected by the proposed project are zoned AP (Agricultural Preserve), FP (Flood Plain), and SPSCA (Special Plan Scenic Area). The SPSCA designation specifies that the parcels shall maintain agricultural and rural residential uses.

3. Is there an effective right to farm ordinance in place?

A right to farm ordinance is in place for the affected parcels.

4. Is the project description consistent with the policies of the Local Agency Formation Commission?

No new agency issues will result from the proposed project.

5. Will the project as proposed impact the present tax base?

Some modest improvements to the long-term tax base in Plumas County may be anticipated as a result of increased stability of agricultural production on the surrounding lands and associated increased land values. No significant direct tax implications are anticipated as a result of project implementation.

B5. Quality of agricultural conservation measures in the project (50)

1. For agriculture lands proposed for conservation, describe any additional site features to be conserved that meet multiple natural resource conservation objectives, including wetland protection, wildlife habitat conservation, and scenic open space preservation where the conservation of each additional site feature does not restrict potential farming activities on the agriculture portions of the site.

Much of the project area is presently characterized by degraded habitat values that have resulted from poorly aligned and ineffective levees and periodic flooding, sediment deposition, and severe streambank erosion, with associated losses of riparian vegetation. The project will set back the levees to create a total stream channel and floodplain width of about 400 to 500 feet. The ground surface outside the low-flow channel but within the setback levees will be graded to emulate a natural terrace configuration. Native vegetation will be reintroduced in the floodplain between levees to reduce erosion and improve habitat values. Native species also will be planted and reinforced directly adjacent to the stream channel to provide shade and help to improve riparian habitat values and in-stream water temperature. In the vicinity of the Wolf Creek confluence with Indian Creek, the south bank levee will be set back considerably, and the area between the new levee and the Indian Creek channel will be graded to near the low-flow creek level, allowing it to be revegetated as wetland habitat. This area would then serve as both a sediment deposition area and high-flow conveyance area. Revegetation also might extend some distance up Wolf Creek, depending on landowner permission. None of these habitat enhancements will restrict agricultural production and, in fact, they will help to reduce flood damage on adjacent agricultural lands.

2. What are the present biological/ecological values to wildlife? How are these values affected by the proposed project?

As noted above, present ecological values are degraded in and adjacent to the stream channel because of poorly aligned and ineffective levees. The response to the previous question summarizes the benefits to habitat values that will result from the project.

3. Is the project proponent working with any local agricultural conservancies or trusts?

Plumas County is not currently working with any local agricultural conservancies or trust, but actively supports and participates in watershed planning in Indian Valley through the Indian Valley Watershed Management and Restoration Project, of which this is one component. The Indian Valley Watershed Management and Restoration Project has been pursued under a Proposition 204 grant issued to Plumas County by the State Water Resources Control Board. The proposed project, which is an outgrowth of the Indian Valley Watershed Management and Restoration Project (specifically, it is a recommendation of the IVWRMP), will benefit agricultural landowners in Indian Valley. The project also will

benefit residents in surrounding communities by improving public safety and promoting other community goals, such as tourism. The County has chartered the IVTAC, consisting of resource agency representatives, local landowners, and other stakeholders to promote public education and support for watershed management and flood control improvements.. Landowner support for the project relates to their desire to preserve agricultural values on their properties, while providing compatible project benefits relating to erosion and sedimentation control, water quality, and habitat restoration and enhancement. Community support for efforts such as the proposed project is very widespread, as evidenced by the formation of the Indian Valley Flood Management Coalition, which formed in 1997 with more than 300 signatories to address flooding problems in the Indian Valley. The planning effort that produced the IVWRMP grew out of the initial impetus of the Coalition. Accordingly, the IVWRMP, including the proposed project, conform to the stated goals of the Coalition. The widespread community support stems from the broad public safety and economic benefits of the proposed program, as well as its contribution to other county-wide goals such as broadening tourism and other new business attraction.

4. Does conservation of this site support long-term private stewardship of agricultural land? How does this proposal demonstrate an innovative approach to agricultural land conservation?

The project preserves and enhances agricultural use of the land, as described in response to several questions above. Local landowners have extended their objectives beyond sustaining agricultural assets and production, and wish to include as much water quality benefit and habitat enhancement into projects as is reasonably possible. This is an innovative approach on the parts of the County, the landowners, and other partners.

5. Without conservation, is the land proposed for protection likely to be converted to non-agricultural use in the foreseeable future?

There is presently little growth and development pressure in Indian Valley outside the several small, rural communities (Greenville, Crescent Mills, Taylorsville), which generally occupy higher ground that is less subject to periodic inundation. The high water table generally discourages intensive development on the Indian Valley floor.

VI. (320 points) Miscellaneous Benefits and Quality of Proposal

A. Size of request, other contributions, number of persons benefiting, cost of grant per benefited person (40)

Estimated Total Project Cost	\$3,803,600
Amount of FPCP Grant Funds Requested	\$3,647,000

Amount of Local Funds Contributed	\$72,000
Amount of In-kind Contributions	\$5,000
Additional Funding Sources (NRCS – PL566 Program Funds)	\$80,000
Number of persons expected to benefit	\$4,200
Flood Protection Corridor Funds per person benefited.*	\$868

(* Count as beneficiaries those receiving flood benefits, recreational users of habitat areas protected by the Project, and consumers of food products from agricultural areas conserved by the Project.)

Those expected to benefit from the project include approximately 3,500 people who live in and around the Town of Greenville, 500 in Taylorsville, and 200 in Crescent Mills. These numbers include landowners who have agricultural lands and residences adjacent to Indian Creek and Wolf Creek who would benefit most directly, as well as residents of surrounding communities who are affected by inundation of major roadways and portions of these communities. All residents of the Indian Valley will benefit from the protection of the agricultural economic base and the restoration of habitat values and improved water quality. An even greater number of people would benefit less directly, including aesthetic benefits recognized by those visiting the area for recreational activities, those outside Indian Valley receiving hay supplies from the Valley, residents downstream who benefit from improved water quality in the stream, etc.

B. Quality of effects on water supply or water quality (90)

1. Will water stored by the project provide for any conjunctive use, groundwater recharge, or water supply benefit?

The project has no storage component, per se.

2. Does the project fence cattle out?

Cattle will be fenced out of the newly opened active floodplain. These areas may be “flash grazed” in a manner consistent with project goals.

3. Does the project pass water over newly developed fresh water marsh?

The proposed project will not directly create new fresh water marsh. However, creation of active floodplain will likely result in the eventual formation of pockets of freshwater marsh as the stream reestablishes more natural stream channel and floodplain forms.

4. Does the project trap sediments?

Setback levees provide increased areas for sediment deposition on active floodplain within levees. Setback levees also will reduce erosion caused by high flow velocities that occur within current levees.

C. Quality of impact on underrepresented populations or historic or cultural resources (60)

1. Does the project benefit underrepresented populations?

Yes. Indian Valley is the home of the Northeastern Maidu Band. The area and associated riparian areas were historically accessed for culturally important natural resources, such as diverse willow species for basketry, etc. Restoration of riparian hydrologic and ecological functions will restore some of these resources. As part of the project, the Northeastern Maidu will be consulted regarding species selection and diversity.

2. Are historical or cultural resources impacted by the project? Explain.

There are no known historical or cultural resources in the project footprint. Occurrences of such resources is considered unlikely because present settlement patterns closely follow those of the Native American (Northeastern Maidu) population of the Indian Valley. Because of the high water table and frequent flooding, most permanent settlement and development has always typically occurred on higher ground at the margins of the Valley. Regardless, the potential presence of these resources will be investigated in conjunction with the CEQA environmental documentation that is anticipated to be provided for the project.

D. Technical and fiscal capability of the project team (60)

1. Does the project require scientific or technical expertise, and if so, is it provided for in the grant proposal?

The proposed project includes engineering design of structures, biology consultants on revegetation layout, agronomic and soils considerations affecting production and new vegetation, and environmental documentation. All of these tasks are to be performed by consultants.

2. Grant funds will be available in phases. What monitoring and reporting mechanisms are built into your administrative plan to track progress, initiation, and completion of successive phases?

Our final scope of work will include monitoring and progress reports scheduled to facilitate the phased funding process. Plumas County will employ a proven project delivery framework, including project scheduling and controls, to plan and execute the work. This framework allows project and grant managers to track spending and progress in a clear and timely manner.

3. Please outline your team's management, fiscal and technical capability to effectively carry out your proposal. Mention any previous or ongoing grant management experience you have.

As noted above, this is one of several phases of the Indian Valley Watershed Management and Restoration Project administered by Plumas

County in cooperation with the IVTAC, comprising resource agency representatives, affected landowners, and other stakeholders. Much of this ongoing project was funded by a Proposition 204 grant awarded by the State Water Resources Control Board. The County has administered other, related projects, under other grants, including another Prop 204 grant, as well as funds from CALFED and Sections 205(j) and 319(h) (State Water Resources Control Board).

E. Coordination and cooperation with other projects, partner agencies, and affected organizations and individuals (80)

1. List cost sharing and in-kind partners and any other stakeholders involved with your project and indicate the nature of their contribution, if any. Address the team's ability to leverage outside funds.

Cost sharing partners for the proposed project include:

- 1) Jerry Spurlock, Local Landowner – The proposed project will be implemented on Mr. Spurlock's property along Indian Creek. As his contribution, Mr. Spurlock will donate the use of his lands, which will be removed from cultivation and fenced to protect the floodplain and levees from damage from cattle. A memorandum of agreement between Mr. Spurlock and the County will be recorded with the County outlining the conditions and limitations of the land right-of-way. Approximate value of the affected land is \$72,000. (A letter of support from the landowner is included in Attachment 3.)*
 - 2) USDA–NRCS – NRCS PL566 funds currently available for implementation of projects on the affected properties will be redirected to support of the levee and streambank improvements of the proposed project. Approximate contribution will be \$80,000. (A letter of support from NRCS is included in Attachment 4.)*
 - 3) Plumas County Dept. of Public Works – The Plumas County Dept. of Public Works will provide project management and oversight services as in-kind services (Approximate value \$5,000).*
 - 4) Other participating and supporting stakeholders include the adjacent landowners and the Regional Water Quality Control Board (a letter of support from RWQCB is included in Attachment 4).*
2. Does your project overlap with or complement ongoing activities being carried out by others (such as CALFED, the Sacramento and San Joaquin River Basins Comprehensive Study, the Delta levee program, local floodplain management programs, the Reclamation Board's Designated Floodway program, or a multiple objective regional or watershed plan)? If so, indicate any coordination that has taken place to date or is scheduled to take place in the future.

This project will be coordinated with activities of Plumas Corporation. The project is highly compatible with CALFED objectives, including restoration or enhancement of upper watersheds through riparian and aquatic habitats and Delta tributary water quality improvements. The project also implements two of the recommendations included in the Indian Valley Water Resources Management Plan, which was developed under a State Water Resources Control Board Proposition 204 grant as part of the Indian Valley Watershed Management and Restoration Project.

3. Will this application, if approved, begin the next phase of a previously approved project or advance an ongoing project substantially toward completion?

The project implements one of the recommendations (Stampfli East Bridge Levee Improvements) included in the Indian Valley Water Resources Management Plan, which was developed under a State Water Resources Control Board Proposition 204 grant as part of the Indian Valley Watershed Management and Restoration Project. Other project components that have been completed include the Upper Indian Creek Watershed Hydrology Study and the Indian Creek Hydraulic Model. Several more implementation projects, such as the one proposed herein, will follow.

4. Describe how the proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, is there written support for the proposal and a willingness to cooperate?

Please refer to responses to questions 1, 2, and 3 immediately above in this section of the Application. In addition to the agency representation previously noted on the IVTAC, the Audubon Society, Feather River Community College Watershed Stewardship Program, and Indian Valley Chamber of Commerce are represented. These stakeholder groups are also favorable to the IVWRMP and, along with Greenville High School, have expressed an interest in supporting project monitoring.

Thank you for taking the time and effort to fill out this application. Please send one hard copy with required signatures by 3:00 p.m. on February 14th, 2003 to:

Earl Nelson, Program Manager
Flood Protection Corridor Program
Division of Flood Management
1416 9th Street, Room 1641
Sacramento, CA 95814

Please also send an electronic copy by 3:00 p.m. on February 14th, 2003 to:

Bonnie Ross at bross@water.ca.gov

Flood Protection Corridor Program Grant Application
Indian Valley Flood Corridor Enhancement Project: Phase 1
Submitted by Plumas County, California

(a) Description of the proposed project

(1) Statement of the problem being addressed

Indian Valley experiences significant periodic flooding, including recent events in 1986, 1995, and 1997 (see photos in Attachment 1 showing flooding in Indian Valley in and adjacent to the proposed project site and the effects of flooding, including severe sediment deposition atop agricultural fields, streambank erosion, and vertical bank cutting). These three events have had return intervals in the range of 50 to 100 years and produced excessive runoff and valley flooding. Lesser frequency floods, with return intervals in the range of 5 to 20 years, have occurred in 13 of the past 95 years. Every decade since 1950, Indian Valley has experienced one to three storms of sufficient magnitude to cause overbank flows, flooding of buildings, excessive siltation on agricultural lands, and bank scour or sloughing. The impacts of periodic flooding in the project area directly adjacent to Indian Creek significantly affect agricultural lands, including loss or damage to homes, out-buildings and fences; bank erosion and soil loss; damage to water delivery canals, pumps, and other agricultural infrastructure; and degraded water quality in Indian Creek from high sediment loads. Fields typically need re-leveling following flood events, debris must be removed, and fences must be repaired at great expense to landowners.

Flooding in Indian Valley, which is often widespread because of the high water table, periodically inundates nearby rural residences and roadways, including Stampfli Road and the two bridges on Stampfli Road. Public safety also is a critical issue, because when Arlington Bridge overtops, roads to these communities are sometimes blocked. The residences of Taylorsville and North Arm are essentially isolated during such floods, with no safe vehicular route out. Many times in this situation, people attempt to cross the floodwaters on foot to buy provisions and risk drowning. Part of the town of Crescent Mills also becomes inundated, raising the threats of drowning and electrocution. North Valley Road also becomes inundated, and many people attempt to cross the floodwaters on foot.

(2) How the project addresses the problem and satisfies the purposes described in Section 497.5(a)(2)

The IVWRMP (Indian Valley Water Resources Management Plan) is one of the elements of the Indian Valley Watershed Management and Restoration Project being administered by Plumas County under a Proposition 204 grant issued by the State Water Resources Control Board. The IVWRMP built on the Upper Indian Creek Watershed Hydrology Study and the Indian Creek Hydraulic Model, both of which were developed under the grant. Studies conducted as part of the IVWRMP considered a range of measures that might address the recurrent flooding events and associated damages in the Valley. The studies show that a range of both upper watershed projects and Valley projects can significantly reduce the severity of the flooding problems in Indian Valley. The IVWRMP outlines a range of feasible

upper watershed and Valley projects and prioritizes them on the basis of such considerations as incremental benefits, cost, and landowner cooperation. A number of upper watershed projects, which are generally less expensive to implement and require less landowner coordination, have already been initiated. In addition to significant environmental benefits, these upper watershed projects should serve to reduce peak flows in the Valley. The proposed project implements a high-priority component of the Indian Valley Water Resources Management Plan (IVWRMP).

The IVWRMP recommendation proposed for implementation under this application is the Stampfli East Bridge Levee Improvement Project. The proposed project includes the following features:

- Setback levees from Stampfli Bridge downstream to a point where the south-side levee already sets back from Indian Creek. The total spacing between the new levees will be approximately 500 feet (as opposed to the current approximately 150 to 200 feet). The setback in this section may occur on either side of the creek according to outcomes of detailed hydraulic modeling of the site and landowner needs.
- In the area between the setback levees, the ground surface outside the low-flow channel will be graded to emulate a more natural floodplain terrace cross section. The area between the levees will be revegetated to reduce erosion and provide improved habitat value. The stream channel will be stabilized, and native riparian vegetation species will be planted and reinforced in the immediate vicinity of the stream channel. Grasses will be planted on the floodplain between the levees and on the levee embankments. Native grasses will be used where practical and desirable in terms of maintenance and stability.

This project will be the first of several flood control measures recommended in the IVWRMP to be implemented. As more of these measures are implemented, the cumulative anticipated benefits will be increasingly widespread and significant.

(3) Description of project approach

The project will be administered by Plumas County. Hydraulic modeling, design, and other technical elements will be performed by a consulting firm under subcontract to the County. The consultant will provide California-registered civil and geotechnical engineers, watershed scientists, environmental planners (for CEQA documentation and permitting support), and hydrology and hydraulics experts. The project will be implemented through the following tasks:

1. Project Management, including directing County and consulting staff, coordinating with the Indian Valley Technical Advisory Committee (IVTAC), discussed in more detail below), and administering all Grant Contract Requirements of Section 497.9 (i.e., Progress Reports, Maintenance Plan, Record Keeping, etc.).
2. Project-specific, design-level hydraulic modeling, which will build on the existing Indian Creek Hydraulic Model. Previous valley-wide modeling has indicated the need for the proposed project and was used to define the general characteristics of the required facilities of the proposed project. The first portion of the proposed project will include more detailed, site-specific hydraulic modeling and geomorphic analysis to more precisely define such details as the required width of levee setback, preferred levee

alignment details, and possible alternatives for floodplain grading and vegetation. The evaluation will allow consideration of channel and floodplain variables that are consistent with the habitat objectives of the proposed project. Also to be considered during the hydraulic analysis is how the proposed project fits with other potential future flood protection and habitat restoration projects in the vicinity to ensure that the features of the proposed project are optimized to meld with the broader Valley-wide plan for flood corridor enhancement. An iterative process involving scenario simulation, stakeholder involvement, and approximate cost estimating will be used to ensure that final project characteristics are compatible with flood mitigation needs, stakeholder concerns, Flood Protection Corridor Program (FPCP) objectives, ordinance requirements, and budget availability.

3. Design and preparation of construction contract documents. Based on the results of the site-specific analysis (Task 2), a construction-level design of facilities and revegetation plan will be developed for contractor bidding.
4. Permitting and Environmental Documentation as required by the California Environmental Quality Act (CEQA). Proposed budget and Initial Study Checklist (Attachment 5) assume that a Mitigated Negative Declaration will be sufficient to achieve CEQA compliance.
5. Facility Construction, including Revegetation.
6. Services During Construction.

The project will be closely coordinated with the IVTAC, which the County chartered several years ago for the Indian Valley Watershed Management and Restoration Project. The IVTAC includes affected resource agency representatives, affected and interested landowners, other consultants working in Indian Valley, and other stakeholders.

(4) Discussion of the expected outcome and benefits of the project

The project will set back existing levees in the vicinity of Stampfli East Bridge to reduce flood elevations, reduce flow velocities, and provide an active floodplain within the levees to enable natural stream channel, floodplain, and riparian processes to regenerate. The area of the low-flow channel between the setback levees will be stabilized and revegetated with native riparian species to reduce erosion, provide shading to help improve in-stream water temperatures, and restore and enhance habitat values. The lower flow velocities and reinforced levees and streambanks will reduce the amount of local erosion and associated flood flow damage to levees. The increased conveyance capacity between the setback levees will reduce upstream backwater effects and excessive sediment deposition in the area during moderate and major flood events.

The levee setbacks will provide a floodplain to lower the creek profile and contain moderate flood flows. The proposed project should allow the stream in this reach to return to a more natural gradient pattern that will, in turn, result in more natural balance between erosion and deposition processes that have been disrupted in this reach. The project will prevent or reduce damage to fences, loss of soils, and the need for re-leveling fields to spread out sediments deposited on surrounding productive lands during moderate floods. The project also will reduce the extensive levee damage and associated sediment deposition that occur

in more extreme events. By providing additional conveyance capacity, the expectation is to increase the flood-flow capacity through these reaches before levee overtopping will occur. The local flood level reduction benefit of this project will complement and cumulatively expand the effectiveness of flood control as additional recommendations of the IVWRMP are implemented. The level of velocity reduction will be determined through preliminary hydraulic design, which will be conducted as part of the proposed project. Anticipated benefits to wildlife habitat and agricultural land values are discussed in Section (j) of this application.

(5) Description of the geographic boundaries of the project

The project is along a reach of Indian Creek in Indian Valley, Plumas County, California. The nearest communities are Crescent Mills and the Town of Greenville. The proposed project begins at the Stampfli East Bridge and extends downstream along Indian Creek approximately 5,000 feet. Bank stabilization and revegetation will be included along this entire reach. The project will extend laterally as much as 500 feet from the current stream channel along most of this reach of Indian Creek.

(6) Verification that the project is located at least partially in one of the Qualifying Areas listed in Section 497.5(a)

The project is located within a FEMA Special Flood Hazard Area with a Flood Zone “A” designation.

(7) Description and justification of any proposed use of program funds for flood control system or water system repairs performed as part of an Easement Program or a project developed or financed under the Program (Water Code Section 79043)

Not applicable.

(8) Demonstration that the project is technically feasible

The feasibility of the project is assumed from the outcomes of flood reduction modeling that was performed using the calibrated and verified Indian Creek Hydraulic Model. The model used standard, widely accepted hydraulic models and modeling protocols consistent with published guidelines. Although levee rehabilitation throughout the entire Indian Valley was considered to be cost-prohibitive and possibly infeasible, model results indicated that the recommended improvements proposed in this application, as well as other improvements modeled in the IVWRMP, would relieve flooding along Indian Creek during 25-year or greater storm events by eliminating some flow constriction and would likely provide some flood protection to specific portions of Indian Valley during smaller storms. Also, Indian Creek on the valley floor is moderately incised with nearly vertical channel banks, few meanders, a poorly defined low-flow channel, and little riparian vegetation. Providing access to an active floodplain through levee setback is a widely-accepted method of reducing levee damage and failure, reducing high flow velocities and associated erosion, and improving habitat conditions.

Technical feasibility will be additionally enhanced by the presence on the project team of a consulting firm that will provide California-registered civil and geotechnical engineers, watershed scientists, environmental planners, and hydrology and hydraulics experts. The

success of the project also will be facilitated by the cooperation and participation of the IVTAC and enthusiastic participation by affected landowners.

(9) Hydrologic and hydraulic analysis prepared by a civil engineer registered pursuant to California law or a Professional Hydrologist-Surface Water certified by the American Institute of Hydrology

As noted above, the proposed project builds on the IVWRMP, which incorporates the Indian Creek Hydraulic Model and Upper Indian Creek Watershed Hydrology Study. Both of these studies were directed by a California-registered civil engineer who specializes in hydraulics and hydrology. This same or equally qualified consultant will conduct project-specific hydrologic and hydraulic analyses as part of the project consultant team.

(10) Complete Initial Study Environmental Checklist as required by Section 15063(f), Title 1, California Code of Regulations, and if available a completed Environmental Impact Report or other environmental documentation as required by CEQA

The Initial Study Checklist is included as Attachment 5.

(11) List of required permits for the project and an implementation plan for their procurement

The following permits and/or approvals are anticipated to be required for the proposed project:

- **Federal Clean Water Act Section 404 Permit** – U.S. Army Corps of Engineers (USACE)
- **Federal Rivers and Harbors Act Section 10 Permit** – USACE
- **Federal Endangered Species Act Section 7 Consultation** – (U.S. Fish and Wildlife Service (USFWS))
- **Federal Fish and Wildlife Coordination Act Report** – USFWS
- **National Flood Insurance Program Letter of Map Revision** – Federal Emergency Management Agency (FEMA)
- **California Department of Fish and Game 1601 Streambed Alteration Agreement** – California Department of Fish and Game (CDFG)
- **California Endangered Species Act Consultation** – CDFG
- **Federal Clean Water Act Section 401 Water Quality Certification** – California Regional Water Quality Control Board (RWQCB)
- **Federal Clean Water Act Section 402 General Construction Activity Stormwater Permit** – California RWQCB
- **Authority to Construct (Clean Air Act) Permit** – Northern Sierra Air Pollution Control District (APCD)
- **Site grading and excavating permit** – local planning agency

-
- **Conditional use permit** – local planning agency

(b) Maps and drawings as necessary to describe the project

(1) Vicinity map

The vicinity map is included in Attachment 6.

(2) Map indicating location of project features and boundaries of affected property

The location map showing affected property boundaries is included in Attachment 6.

(3) Drawings or sketches of project features as necessary to describe them

The location map included in Attachment 6 also shows proposed project features.

(c) Financial summary

(1) The estimated cost of the project broken down by task

Task/Item	Cost
Project Management	\$ 5,000
Project-specific Hydraulic Analysis	\$ 95,000
Design	\$ 335,000
Permitting and Environmental	\$ 150,000
Documentation	
Facility Construction and Revegetation	\$ 2,249,000
Services During Construction	\$ 223,000
Contingency (30% of Construction)	\$ 675,000
Land Easement	\$ 72,000
Total Cost	\$ 3,804,000
Cost Share	
Spurlock Easement	\$ 72,000
NRCS PL566 Program Funds	\$ 80,000
County In-Kind Project Management	\$ 5,000
Total Cost Share	\$ 157,000
Requested Funds	\$ 3,647,000

Note: The cost estimate given here includes a conservative estimate of construction cost, estimated with consideration for accommodation of a reasonable level of unanticipated conditions that might impact cost. Information gained during the detailed site investigation and hydraulic analysis could reduce these costs considerably, and any appropriate cost-saving alternatives would be incorporated as long as project value and public safety objectives of the project are maintained.

(2) The estimated flood control benefits of the project

The flood control benefits of the proposed project are discussed in detail in Section B of the Grant Application Form. As discussed there, damages of more than \$300,000 were incurred in 1997 (and similar amounts in 1986) that are directly addressed by the proposed project. However other direct and indirect flood control benefits of the proposed project are considerable as discussed in Section B of the application form.

(3) The amount of the grant requested

Requested FPCP Funds – \$3,647,000

(4) The estimated amount to be funded by the applicant

Total Cost Share – \$157,000

(5) Identification of any other parties contributing to the cost, and the amounts and activities to be funded by them.

Cost Share Contributions

Spurlock – Property Owner – Donation of Easement	\$	72,000
NRCS PL566 Program Funds – Levee and Stream	\$	80,000
Channel Improvements		
County In-kind Project Management	\$	5,000
Total Cost Share	\$	157,000

(d) A summary of proposed property acquisition rights including:

(1) Identification of each property

The proposed project is to be developed entirely on the property owned by Jerry Spurlock.

(2) Names, addresses and telephone numbers of the property owners and lessees or tenants

Jerry Spurlock, 435 Stampfli Road, Greenville, CA 95947

(3) The type of property rights to be acquired (such as easement or fee title)

Accommodations for access, maintenance, and compatible land use of subject lands will be made through a Memorandum of Agreement recorded with Plumas County.

(4) Evidence that affected landowners are willing participants in any proposed real property transactions in the form of flood easements, and are willing to allow right of entry for this proposed project.

A letter of support and cooperation from Mr. Spurlock is included in Attachment 3.

(5) A justification of any proposed acquisition of fee interest in property to protect or enhance a flood protection corridor or floodplain while preserving or enhancing agricultural use (Water Code Section 79037(b)(1)) which includes:

Not Applicable. Fee title acquisition for the project is not anticipated.

(e) A tentative work plan for the project including:

(1) A timetable for execution of the project

Overall Project Time Schedule is June 2003 through December 2004. Anticipated scheduling of individual tasks is included below under the task breakdown.

(2) A task breakdown for the project

1. Project Management, including directing County and consulting staff, coordinating with the IVTAC, and administering all Grant Contract Requirements of Section 497.9 (i.e., Progress Reports, Maintenance Plan, Record Keeping, etc.) (June 2003 – December 2004)
2. Project-specific, design-level hydraulic modeling, which will build on the existing Indian Creek Hydraulic Model (June 2003 – September 2003)
3. Design and preparation of construction contract documents (August 2003 – November 2003)
4. Permitting and Environmental Documentation as required by CEQA (September 2003 – February 2004)
5. Construction (May 2004 – September 2004)
6. Services During Construction (February 2004 – October 2004)

(3) A description of how services of the California Conservation Corps, or local community conservation corps will be used in the project

To this point, use of CCC services has not been considered, and discussions with the Sierra Service District of the Corps have not been conducted. However, suggestions of possible cooperative opportunities are welcome. In particular, the revegetation component of the proposed project appears to be a reasonable application of CCC resources and may represent a potential cost-saving alternative.

(f) A list of names and addresses of owners of all property interests in parcels adjacent to those for which acquisition of property rights is proposed.

Adjacent and nearby landowners most immediately affected by the project include:

Jerry Spurlock, 435 Stampfli Road, Greenville 95947

Gary Brown, P.O. Box 6793, Chico 95927

Monte Smith, P.O. Box 753, Greenville 95947

Mary McIntyre, 34 Greenway Circle, Sacramento 95831

Harry Rogers, 4059 N. Valley Road, Greenville 95947

Floyd Neer, 7270 N. Valley Road, Greenville 95947

(g) If property rights are to be acquired for the project, or if a need is indicated in environmental review documentation prepared for the project pursuant to CEQA, a plan to minimize the impact of the project on adjacent property owners, including but not limited to the following (Water Code Section 79041):

(1) An evaluation of the impact on floodwaters

As noted throughout this application, the impact of the project on floodwaters will be beneficial. The project is anticipated to reduce peak flood elevations, and these reductions will increase as additional recommendations of the IVWRMP are implemented. Presently, peak flood elevation reductions from the proposed project are anticipated to be in the range of about 0.5 foot. This will be more accurately quantified during the hydraulic and hydrologic analysis to be undertaken in conjunction with project design. The analysis and design efforts will include evaluation of potential impacts on upstream and downstream landowners. Preliminary analysis indicates that impacts on any upstream, downstream, or adjacent properties will be either negligible or beneficial.

(2) The structural integrity of affected levees

The existing levee segments that are proposed to be set back by the project are poorly aligned, resulting in flow constrictions, backwater effects, and frequent damage and failure. They are ineffective in preventing periodic flooding, and their poor alignment contributes to bank erosion, scour, and sedimentation problems. The new setback levees that replace them will be constructed to strict standards, incorporating rock or bioengineered armoring, making them more stable and reliable than existing facilities.

(3) Diversion facilities

There are no new diversion facilities proposed. Two existing agricultural irrigation diversions will be modified to accommodate the new levee alignment.

(4) Current and historic agricultural practices on the project site and in the vicinity

Current and historical agricultural practices onsite and in the vicinity include livestock grazing, hay production, and non-row crops. Impacts to land use on adjacent properties are anticipated to be non-existent or beneficial.

(5) Timber extraction operations

There is no commercially significant timber nor any timber extraction operations within the project site. The project will have no direct effect on timber extraction operations, although it may help to alleviate flooding of local roadways.

(6) An evaluation with regard to maintenance

Routine maintenance and frequent monitoring of levee condition will be performed by the affected landowners, who are active participants in the IVTAC. The Plumas County Flood

Control and Water Conservation District will perform or coordinate any necessary major repairs.

(h) A description of the input and participation that local groups and affected parties provided in the preparation of the work plan and application

The County has chartered the IVTAC, consisting of resource agency representatives, local landowners, and other stakeholders to promote public education and support for watershed management and flood control improvements. Landowner support for the project relates to their desire to preserve agricultural values on their properties, while providing compatible project benefits relating to erosion and sedimentation control, water quality, and habitat restoration and enhancement. The IVTAC, and the affected landowners in particular, participated in a day-long brainstorming session to develop the work plan for the proposed project. They met subsequently at the project site to confirm details of the proposed project. IVTAC members actively assisted the County in preparing this application..

(i) A statement relative to the use of a trust fund for maintenance, or any proposed alternative, as specified in Water Code Section 79044

Not applicable.

(j) Either or both of the following, depending on applicability:

(1) An analysis of the project benefits to wildlife habitat

Indian Valley/Indian Creek serves as a hunting, foraging, and general movement corridor for several state- and federally listed raptor species that nest in and around the lakes and reservoirs in the general area. The reported nesting sites are connected by the Wolf, Lights, and Spanish creeks riparian corridors and their various sub-tributaries, through Indian Valley, and downstream along the East Branch of the North Fork Feather River. This migration route also connects the nesting habitat of the greater sandhill crane to its wintering grounds in the Central Valley.

The stream restoration measures proposed by the project will serve to improve both the foraging habitat for the raptors and the nesting habitat for the cranes. Concurrently, restoration of the degraded riparian habitat will add to the overall species diversity in the project area by generally improving the “edge” and ecotone qualities offered by the juxtaposition of a Sierran mixed conifer forest habitat and that of an open grassland/alluvial floodplain.

Proven nesting habitat exists onsite for the federally listed threatened greater sandhill crane. Improvement of the riparian vegetation will enhance the viability of this special-status species and potentially provide improved habitat for other special-status species, such as the state-listed endangered willow flycatcher, also known to frequent the project vicinity. Riparian restoration efforts included in the project will also improve the foraging habitat of several special-status raptor species that are known to nest in and around the many lakes, marshes, and reservoirs geomorphically connected to the project site.

Restoring riparian and aquatic habitats at this site will help to improve water quality by reducing erosion and sedimentation and decreasing water temperature as riparian vegetation returns to provide shade. This will provide water quality benefits downstream throughout the valley and beyond, as well as habitat for such valuable aquatic species as trout. Some shallow freshwater emergent wetland habitat also is expected to develop in areas of the restored floodplain, which represents habitat for numerous waterfowl species that are prevalent in the Indian Valley.

(2) A description of project actions to preserve agricultural land

The project is anticipated to reduce the impacts of periodic flooding in the project area directly adjacent to Indian Creek by setting back levees and creating a more natural floodplain configuration to increase conveyance capacity and reduce peak flows. Existing impacts to agricultural lands include loss or damage to homes, out-buildings, and fences; bank erosion and soil loss; damage to water delivery canals, pumps, and other agricultural infrastructure; and degraded water quality in Indian Creek from high sediment loads. Fields typically need re-leveling following flood events. In addition, debris must be removed, and fences must be repaired at great expense to landowners.

(k) A statement of qualifications for the project team

Plumas County has a long history of Grant Administration in the areas of flood control and road infrastructure. Within the past 2 years, we have administered a \$1 million Proposition 204 grant for various stream and meadow restorations, as well as the \$300,000 Proposition 204 Indian Valley Watershed Management and Restoration Project.

In past flood events (1986, 1995, 1997), we have administered several NRCS flood repairs as well as our own FEMA and OES repairs to our road infrastructure. These repairs totaled millions of dollars for each event.

Our engineering staff includes:

- Tom Hunter, Director of Public Works
- Marty Byrne, Assistant Director of Public Works
- Jerry Blinn, Associate Engineer
- John Kolb, Assistant Engineer
- John Mannie, Assistant Engineer/Transportation Planner
- Bo Hands, Assistant Engineer
- Mark Crews, Engineering Technician

Brief resumes of these individuals follow:

- Tom Hunter – Director of Public Works
RCE 30515
B.S. Degree in Civil Engineering, California State University, Chico
30½ years of employment with Plumas County
- Marty Byrne – Assistant Director of Public Works
RCE 31506

B.S. Degree in Civil Engineering, San Diego State University
8 years with Plumas County
Prior experience with consultant engineering firms in San Diego

- Jerry Blinn – Associate Engineer

RCE 37903

B.S. Degree in Civil Engineering, California State University, Sacramento
22 years of increasingly responsible engineering work for Plumas County

- John Kolb – Assistant Engineer

12 years of current employment with Plumas County
Employed by Plumas County from 1976 to 1979 and 1980 to 1986; years elsewhere
were spent working for Consultant Engineers
Field representative for most Plumas County creek work and flood repairs

- John Mannle – Assistant Engineer/Transportation Planner

B.S. Degree in Civil Engineering, California State University, Chico
EIT

5½ years of work with Plumas County

Formerly employed by Humboldt County and Consultant Engineers

- Bo Hands – Assistant Engineer

B.S. Degree in Civil Engineering, Oregon Technical Institute
EIT

1 year with Plumas County since graduation

- Mark Crews – Engineering Technician

4½ years of work with Plumas County after high school graduation

There are also three other employees within the Engineering Department staff that typically would not get involved in this grant process.

The Public Works Engineering Staff has demonstrated its capabilities to implement the proposed grant through its previous successful performance in implementing grants for flood control and watershed management; related flood control, stream restoration, and flood damage repair activities; and our professional experience and qualifications.

(I) A written statement by an attorney certifying that the applicant is authorized to enter into a grant agreement with the State of California

Note: Authority: Water Code Sections 8300, 12580, and 79044.9

Reference: Water Code Sections 79035 through 79044; Public Resources Code Sections 21000 et seq.; California Code of Regulations, Title 1, Section 15063(f)

The certification by the County Counsel's office is included as Attachment 7.

Attachment 1
Photos of Project Site



Looking downstream from the Stampfli East Bridge showing narrowly constricted Indian Creek channel, eroding vertical streambanks, and denuded riparian vegetation



Extensive flooding adjacent to Indian Creek resulting from 1997 storm



Flood event of 1997 near confluence of Indian Creek and Wolf Creek



View of project site showing extensive damage to agricultural lands from sediment deposition resulting from levee failures

Attachment 2
Indian Creek Hydraulic Model
(report is included with hard-copy submittal)

Attachment 3
Landowner Letter of Support and Cooperation

Jerry Spurlock - Landowner
435 Stampfli Lane
Greenville, CA 95947

February 12, 2003

California Department of Water Resources
Flood Protection Corridor Program
2003 Grant Solicitation Review Committee

RE: Willing Participant Indian Valley Flood Corridor Enhancement Project: Phase 1

This letter represents my assertion of support and willingness to participate in the Indian Valley Flood Corridor Enhancement Project proposed by Plumas County Department of Public Works for funding under the DWR Flood Protection Corridor Program. I have been involved in the efforts of the County over the past several years to address the flooding problems in Indian Valley and I am pleased to see progress toward implementing the first phase of that plan.

I understand that the proposed project involves impacts to my property, including construction of levees, associated grading, and stream channel improvements (or grading and channel revegetation, whichever is appropriate for each landowner).

If the proposed project is funded, I am willing to work with the county to negotiate a suitable Memorandum of Understanding or easement to be recorded with Plumas County to insure the appropriate long-term maintenance of the levees and the protection of the stream and floodplain. The basic principles to be included in such an agreement should include the following:

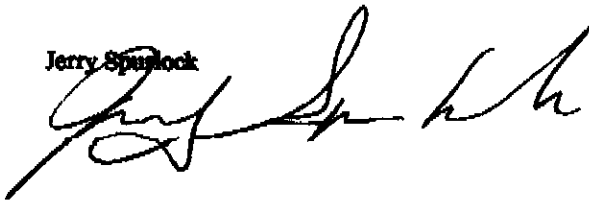
1. The property owner would be responsible for routine maintenance on the levees constructed. This routine maintenance might include maintaining the vegetative cover and the filling of minor erosion areas.
2. In the case of any major damage or breach of the levees, the property owner would cooperate, within his/her capabilities, with the Plumas County Flood Control and Water Conservation District and other appropriate agencies and authorities to make the necessary repairs.
3. The Plumas County Flood Control and Water Conservation District would have a right of entry to inspect and perform necessary work on the levees, floodplain within the levees, and stream channel. The property owner would be consulted on any work. Inspection should occur at least annually.
4. The levees, as constructed, shall remain in place permanently unless a future plan, similarly endorsed by the responsible agencies and the landowner, for comprehensive, or at least until another acceptable erosion and flood control alternative can be implemented.
5. The property owner still maintains the right to control access to the lands on or within the levees.

I understand that construction of the proposed project may result in some limitation of the range of uses on that portion of my land on the levees and between the new levees and the stream. As my contribution toward the cost of the proposed project, I accept those limitations, the exact nature of which will be negotiated as part of the future agreement with the County.

I encourage the Department of Water Resources to strongly consider funding the Plumas County proposal.

Sincerely,

Jerry Spurlock



Attachment 4
Letters of Support from RWQCB and NRCS



California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair



Winston H. Hickox
Secretary for
Environmental
Protection

Redding Branch Office
Internet Address: <http://www.swrcb.ca.gov/~rwqcb5>
415 Knollcrest Drive, Suite 100, Redding, California 96002
Phone (530) 224-4845 • FAX (530) 224-4857

Gray Davis
Governor

12 February 2003

Tom Hunter, Director
Plumas County Dept. of Public Works
1834 East Main
Quincy, CA 95971

INDIAN VALLEY FLOOD CORRIDOR ENHANCEMENT PROJECT

We are writing in support of the subject project submitted by Plumas County for funding under the Flood Protection Corridor Program of Proposition 13.

Since entering into the 1984 Memorandum of Understanding establishing the Feather River Coordinated Resource Management Program (CRM), the Central Valley Regional Water Quality Control Board has been working to support water quality and watershed improvement projects throughout the East Branch North Fork Feather River watershed (including Indian Creek). Through the efforts of many federal, state and local entities, including CA Dept. of Water Resources, numerous projects have been implemented with the overall objectives of water quality and habitat improvement, flood attenuation, and restoring natural functioning condition of stream and river channels. To date, project planning and implementation has focused on the upper watershed areas.

In 1999, through the Proposition 204, Safe, Clean, Reliable Water Supply Act, the State Water Resources Control Board provided funding for development of the Indian Valley Water Resources Management Plan. Completed in July, 2002, that Plan sets forth a strategy for improved water resources management through continuation of the restoration activities in the upper watershed and initiation of related work downstream in Indian Valley.

In reviewing the proposed Indian Valley Flood Corridor Enhancement Project, we anticipate the following benefits:

- reduced channel bank erosion on Indian Creek
- increased density and diversity of riparian habitat within the flood corridor resulting in benefits to water quality, aesthetics, and aquatic/terrestrial wildlife species
- mitigation of flood damage to property owners adjacent to Indian Creek

It is our hope that the benefits derived from implementation of this proposed project can, in time, be extended throughout Indian Valley. The Indian Valley Flood Corridor Enhancement Project is a critical

California Environmental Protection Agency



The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov/rwqcb5>

first step in implementing the Indian Valley water resource management strategy and extending the successes of habitat improvement/flood attenuation from the upper watershed areas downstream into Indian Valley. We strongly support funding for this project.

A handwritten signature in cursive script, appearing to read "James C. Pedri".

James C. Pedri
Assistant Executive Officer
RWQCB

United States Department of Agriculture



Natural Resources Conservation Service
116 Crescent St.
P.O. Box 577
Greenville, CA 95947
530-284-1300 284-1302 fax

To: Tom Hunter
Plumas County Public Works Director
1834 East Main St.
Quincy, CA 95971

2-11-03

Subject: Support of Indian Valley Flood Protection Corridor Program Grant Application

Dear Mr. Hunter,

I am writing you this letter to offer my agencies assistance in your efforts to work on flood corridor improvement projects throughout Plumas county, and in Indian Valley specifically. Several landowners we have met with have expressed a willingness to cooperatively work together to address the flooding and erosion issues along Indian Creek. It is possible to use money these landowners have in contracts with our agency to apply towards work the county is attempting to do along the creek. The NRCS field office here in Greenville supports the concept of setback levees and floodplain restoration along Indian Creek. To this end we support the Indian Valley Flood Corridor Enhancement Project. However, without thoroughly reviewing the final report, prepared by CH2M Hill regarding flooding in Indian Valley I am not sure what role my office can play in your application for funding for this project.

I will be discussing the project with the Feather River Resource Conservation District at their next meeting and will notify you of any decisions that we make regarding this proposed project. I am confident that we can work together successfully to address flood management and riparian restoration issues in this current grant application. I look forward to strengthening the partnership between the county and NRCS in the upcoming years, and discussing additional grant opportunities as well.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dan Martynn", with a stylized flourish at the end.

Dan Z. Martynn
District Conservationist

Attachment 5
CEQA Initial Study Checklist

APPENDIX G

Environmental Checklist Form

1. Project title: Indian Valley Flood Corridor Enhancement Project: Phase 1
2. Lead agency name and address:
Plumas County
1834 East Main
Quincy, CA 95971
3. Contact person and phone number:
Tom Hunter, Public Works Director
530/283-6268
4. Project location:
Along Indian Creek from East Stampfli Bridge downstream to confluence with Wolf Creek, near the community of Crescent Mills and Town of Greenville, Indian Valley, Plumas County, California
5. Project sponsor's name and address:
Plumas County
1834 East Main
Quincy, CA 95971
6. General plan designation: Agricultural Preserve
7. Zoning: AP (Agricultural Preserve), FP (Flood Plain), and SPSCA (Special Plan Scenic Area)
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The project implements one of several recommendations of the Indian Valley Water Resources Management Plan (IVWRMP). The IVWRMP is one of the elements of the Indian Valley Watershed Management and Restoration Project being administered by Plumas County under a Proposition 204 grant issued by

the State Water Resources Control Board. The IVWRMP built on the Upper Indian Creek Watershed Hydrology Study and the Indian Creek Hydraulic Model, both of which were developed under the grant. The recommendation proposed for implementation under this application is the Stampfli East Bridge Levee Improvement Project. This recommended implementation measure includes the following features:

- Setback levees from Stampfli Bridge downstream approximately 4,600 feet to a point where south-side levee already sets back from Indian Creek. The total spacing between the new levees will be approximately 500 feet (as opposed to the current approximately 150 to 200 feet). The setback in this section may occur on either side of the creek. However, at this point, the plan is to avoid disturbance of Neer's pump, so downstream of that point, all setback would occur on south side of Indian Creek.
- In the area between the setback levees, the ground surface outside the low-flow channel will be graded to emulate a natural terrace cross section. The area between the levees will be revegetated to reduce erosion and provide improved habitat value. Native riparian vegetation species will be planted and reinforced in the immediate vicinity of the stream channel. Native species also will be planted in the floodplain between the levees and on the interior levee embankments, where practical from a maintenance and stability standpoint.

This measure is the first of several flood control measures recommended in the IVWRMP. As more of these measures are implemented, the cumulative beneficial effects of the improvements will be increasingly widespread and significant.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

The project occupies portions of the Indian Valley near the community of Crescent Mills and the Town of Greenville. The project area is a sparsely settled mountain meadow area characterized by scattered agricultural residences. The land is used primarily for livestock grazing, hay production, and row crops. Indian Creek, which is the focal point for the project, is narrowly confined between levees, which are frequently overtopped during major storms. The narrowly constricted waterway has nearly vertical, deeply incised banks that are largely devoid of natural riparian vegetation. The narrow stream corridor between the existing levees has little meander and virtually no floodplain to diffuse and convey peak flows.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

The following permits and/or approvals are anticipated to potentially be required

for the proposed project:

- **Federal Clean Water Act Section 404 Permit** – U.S. Army Corps of Engineers (USACE)
- **Federal Rivers and Harbors Act Section 10 Permit** – USACE
- **Federal Endangered Species Act Section 7 Consultation** – (U.S. Fish and Wildlife Service (USFWS)
- **Federal Fish and Wildlife Coordination Act Report** – USFWS
- **National Flood Insurance Program Letter of Map Revision** – Federal Emergency Management Agency (FEMA)
- **California Department of Fish and Game 1601 Streambed Alteration Agreement** – California Department of Fish and Game (CDFG)
- **California Endangered Species Act Consultation** – CDFG
- **Federal Clean Water Act Section 401 Water Quality Certification** – California Regional Water Quality Control Board (RWQCB)
- **Federal Clean Water Act Section 402 General Construction Activity Stormwater Permit** – California RWQCB
- **Authority to Construct (Clean Air Act) Permit** – Northern Sierra Air Pollution Control District (APCD)
- **Site grading and excavating permit** – local planning agency
- **Conditional use permit** – local planning agency

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |

- | | | |
|--|---|---|
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Signature

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each

question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:

- a) the significance criteria or threshold, if any, used to evaluate each question; and
- b) the mitigation measure identified, if any, to reduce the impact to less than significance

SAMPLE QUESTION

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

The agricultural lands on the project site are under Williamson Act contracts, but they will remain in agricultural production following project construction.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

The existing levees will be replaced by setback levees to a create a distance of approximately 500 feet between levees and will occupy portions of land that are currently in agricultural production. However, the land use on the land inside the new flood control channel, between the creek bank and the relocated levees, will still be available to limited grazing activity.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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There will be emissions introduced by construction equipment and activity; however, these will not be substantial relative to existing conditions and would not obstruct implementation of the applicable air quality plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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See response to III(a), above.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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See response to III(a), above.

d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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There are no sensitive receptors located reasonably near or adjacent to the project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

Very few people reside in or frequent the area of the project site, and no substantial numbers of people would be affected by objectionable odors.

IV. BIOLOGICAL RESOURCES -- Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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All construction activities will be conducted in coordination with representatives of the California Department of Fish and Game and/or the U.S. Fish and Wildlife Service. The overall benefits to species habitat from the restoration of natural streamside hydrology and vegetation will improve the project site from existing conditions in terms of wildlife habitat.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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See response to IV(a), above.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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See response to IV(a), above.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
See response to IV(a), above.				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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The two predominant soil series located in the project site, the Keddie and Massack series, can locally be poorly drained. However, given the lack of historical seismic activity in the project area, it is not likely that a seismic event will occur leading to liquefaction of the soils underlying the project site.

iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

There may be some loss of topsoil during the construction activity involved in relocating the existing levees; however, Best Management Practices for grading and construction will be employed throughout the duration of construction and will be pre-designed in coordination with and approved by the Regional Water Quality Control Board to ensure minimization of topsoil loss.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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See response to VI(a)(iii), above.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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Fuels and lubricants may be employed to maintain construction equipment onsite. Best Management Practices for construction will be observed throughout the duration of construction to ensure that no upset or hazard to the public will occur.

b) Create a significant hazard to the public or the				
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
See response to VII(a), above.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

The project site is in an open agricultural/annual grassland area. However, it is surrounded on all sides by heavily wooded mixed conifer forest, so that it is possible that grass fires could ignite from construction equipment or activity. Best Management Practices for construction area health and safety will be employed onsite throughout the duration of construction, and all project personnel will be trained and appraised of the Health and Safety Plan to ensure that a wildfire does not get started.

VIII. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
-- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>

See response to VI(b), above.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

One of the prime purposes of the project is to alter the current course of the stream to restore it to a more natural, pre-channelized condition, with one of the results being a net decrease in erosion and siltation, both on- and offsite.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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See response to VIII(c), above. An additional result of the project will be a decrease in localized flooding.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

See response to VI(b), above.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

One of the prime purposes of the project is to set back the levee structures in the local flood hazard area so that the flows during flood events will be less impeded and, hence, less likely to overtop the stream banks and levees and flow into adjacent agricultural areas. Therefore, the intent of the project is to better contain and convey flood flows within the natural streamcourse.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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The relocated levee structures will be designed to withstand any large flood event, so that people or structures would not be placed at any significant risk of loss, injury, or death.

j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
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IX. LAND USE AND PLANNING - Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

The benefits from riparian restoration will complement the goals of any applicable habitat conservation plans or natural community conservation plans.

X. MINERAL RESOURCES -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

XI. NOISE – Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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There will be noise generated by project construction activity; however, construction windows and methods will be designed and approved by the local authorities to avoid violating any local standards or ordinances.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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The project will generate some groundborne vibration and noise, but the distance of the project site from local receptors is sufficient that it will not be considered excessive. See also response to XI(a), above.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>

See response to XI(a), above.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
levels?				
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

XV. TRANSPORTATION/TRAFFIC -- Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
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There will be an increase in existing number of vehicles traveling to and from the project site during construction. Daily trip numbers will not be sufficiently substantial to significantly impact or degrade the level of service for the local roadways. These impacts will be temporary in duration and effect.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Board?				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>

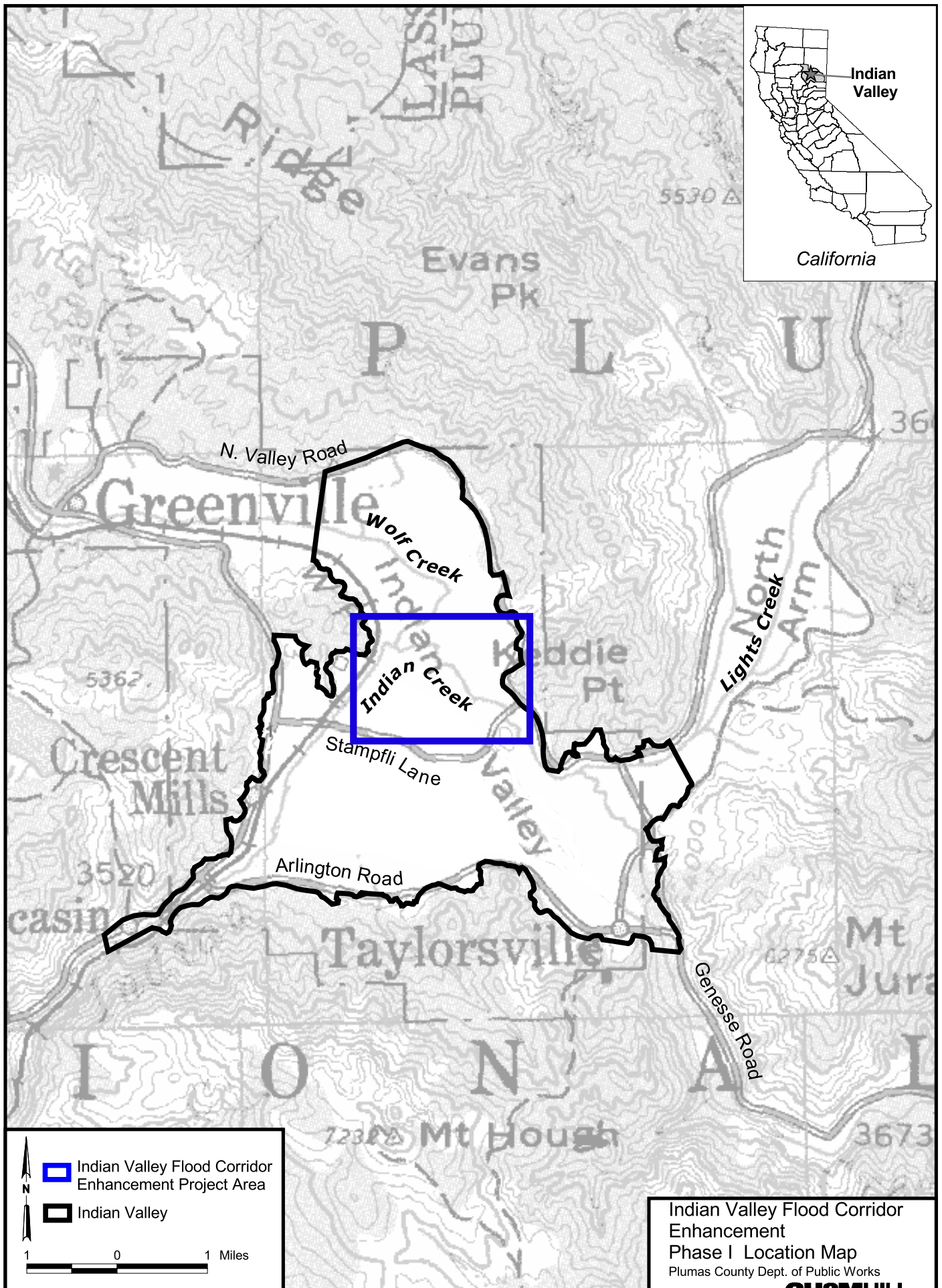
The overall effect of project operation will be a net benefit to wildlife and habitat. There may be short-term, localized, less-than-significant impacts resulting from project construction, but these will be mitigated during the pre-construction consultation and approval process with the appropriate resource agencies.

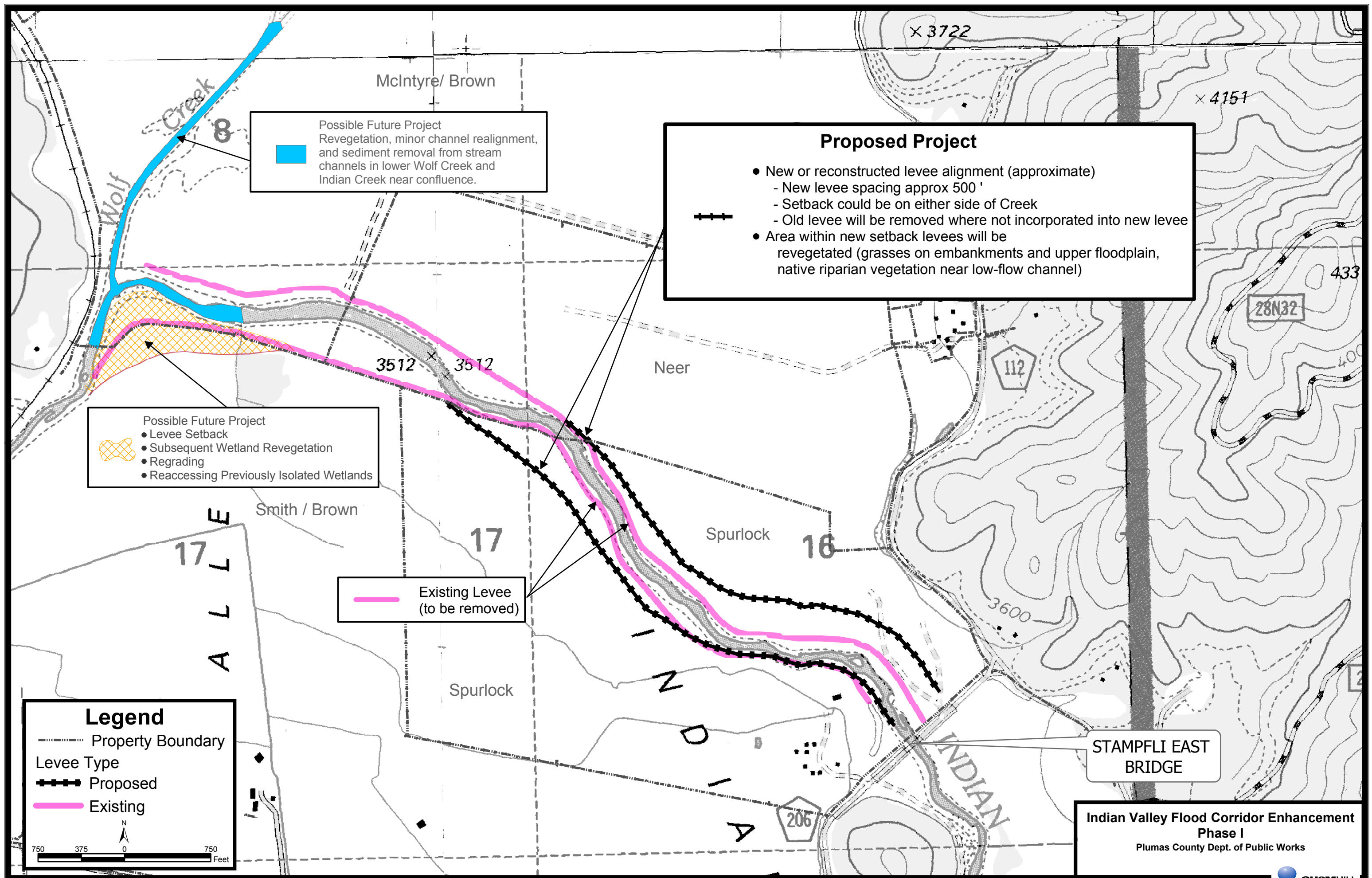
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Similar to the response in XVII(a), above, the overall cumulative effect of the project plus other projects completed, underway, or planned for the project area will be beneficial to all resource areas. There will be short-term, localized, less-than-significant impacts resulting from construction activities, but these will be mitigated during the pre-construction consultation and approval process with the appropriate resource agencies.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Attachment 6
Vicinity Map
Site Map Showing Affected Property Boundaries
and Project Features





Attachment 7
Attorney's Certification That Applicant is
Authorized to Enter into Grant Agreement



OFFICE OF THE

COUNTY COUNSEL
COUNTY OF PLUMAS

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ROBERT SHULMAN
COUNTY COUNSEL

BARBARA SNELLING
DEPUTY COUNTY COUNSEL

Phone: (530) 283-6240
Fax: (530) 283-6116

February 11, 2003

To Whom It May Concern:

Mr. Tom Hunter has requested that our office provide a statement certifying that the Plumas County Flood Control and Water Conservation District (hereinafter "District") is authorized to enter into a grant agreement with the State of California.

The Plumas County Flood Control and Water Conservation District Act (hereinafter "Act") enumerates powers possessed by the District. (Act No. 5964, uncodified) The power to "receive and accept any and all contributions in labor, material or money" from the State of California, or any department, board, bureau or commission of the State of California is included. (Act 5963, § 3, subd. (m), (o).) The act also specifies that the District may "make, execute, carry out and enforce all contracts of every character, necessary, convenient, incidental, useful or proper to carry out any of the provisions, objects or purposes of this act . . ." (Act 5963, § 3, subd. (e).)

Thus, the District is authorized by the Plumas County Flood Control and Water Conservation Act to enter into a grant agreement with the State of California, or the political subdivisions thereof, so that it may accomplish its prescribed functions.

Please do not hesitate to contact me directly at (530) 283-6240 should you have any questions regarding this letter. Thank you.

Sincerely,

Barbara Snelling
Barbara Snelling
Deputy County Counsel